

# Drainage Review

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A DDES Customer Information Bulletin



King County Department of Development and Environmental Services  
900 Oakesdale Avenue Southwest Renton, Washington 98055-1219

<http://www.metrokc.gov/ddes/>

## Frequently Asked Questions

King County DDES has created customer information bulletins to inform the general public about the effect of codes and regulations on their projects. These bulletins are not intended to be complete statements of all laws and rules and should not be used as substitutes for them. If conflicts and questions arise, current codes and regulations are the final authority. Because the codes and regulations may be revised or amended at any time, consult King County staff to be sure you understand all requirements before beginning work. It is the applicant's responsibility to ensure that each project meets all requirements of applicable codes and regulations.

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### Do drainage review requirements apply to my project?

This bulletin is intended to alert you to the possibility that your project may be subject to drainage review and to inform you of the "core" and "special" requirements that may apply. This bulletin does not attempt to set out all the standards that must be met or the actions on your part that will completely satisfy requirements for control of surface and storm water runoff. A "project" means the proposed action of a permit application that requires drainage review.

If you think that your project may fall into one of the listed categories, you should consult the current *King County Surface Water Design Manual* or a civil engineer to ensure that you follow the appropriate guidelines.

A drainage review is required for a proposed project that involves any of the planned actions listed below and requires one of the King County permits, which are listed following the actions:

1. Adds 5,000 square feet or more of new impervious surface.
2. Proposes to construct or modify a drainage pipe/ditch that is 12 inches or more in size/depth, or receives surface and storm water runoff from a drainage pipe/ditch that is 12 inches or more in depth/size.

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3. Contains or is adjacent to a floodplain, stream, lake, wetland, closed depression, or other sensitive area as defined in the Sensitive Areas Ordinance (codified in King County Code [K.C.C.] 21A.24), excluding seismic, coal mining, and volcanic hazard areas.
4. Is located within a landslide hazard drainage area and adds 2,000 square feet or more of new impervious surface.
5. Is located within a critical drainage area.
6. Is located within a rural zoned area subject to areal clearing limits under K.C.C. 16.82.560[c] and clears more than 7,000 square feet, or 35 percent of the site, whichever is greater.
7. Is a redevelopment project proposing \$100,000 or more of improvements to an existing high-use site.
8. Is a redevelopment project proposing \$500,000 or more of site improvements and creates 5,000 square feet or more of contiguous pollution-generating impervious surface through any combination of new and/or replaced impervious surface.

Again, if your project involves any of the planned actions listed above, and requires one of the following permits, a drainage review will be required:

Administrative Subdivision (Short Plat)	Conditional Use
Clearing	Commercial Building
Experimental Design Adjustment	Formal Subdivision (plat)
Franchise Utility Right-of-Way Use	Grading
Master Drainage Plan	Pre-application Adjustment
Right-of-Way Use	Shoreline Substantial Development
Special Use	Single Family Residential Building
Surface Water Design Manual Variances	Unclassified Use
or Adjustments	Urban Planned Development
Zoning Reclassification	Zoning Variance

## What are the different types of drainage reviews?

For most projects adding 5,000 square feet or more of impervious surface, the full range of core and special requirements must be evaluated for compliance through the drainage review process. For some types of projects, however, the scope of requirements applied is narrowed to allow more efficient, customized review. Each of the following four drainage review types tailors the review process and application of drainage requirements to a project's size, location, type of development, and anticipated impacts to the local and regional surface water system:

**Small Site Drainage Review** – This is an alternative to full drainage review for small residential building and subdivision projects adding less than 10,000 square feet of new impervious surface and clearing less than two acres or 35 percent of the site, whichever is greater.

**Targeted Drainage Review** – This is an abbreviated evaluation of small-site proposals and other small projects that have site-specific or project-specific drainage concerns for compliance with selected core and special requirements.

**Full Drainage Review** – This is the evaluation of projects for compliance with the full range of core and special requirements that do not qualify or choose not to comply with small-site and/or target drainage review.

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Large Site Drainage Review – This is applied to development proposals that are larger and/or involve resource or problems of special sensitivity or complexity.

### What are the core requirements?

Every project requiring a drainage review must meet each of the following core requirements. These core requirements are described in detail in the current *King County Surface Water Design Manual*.

#### Core Requirement 1: Discharge at the Natural Location

The discharge from a project site must occur at a natural location and produce no significant adverse impact.

#### Core Requirement 2: Off-Site Analysis

All projects must identify and evaluate off-site drainage problems that may be created or aggravated by the proposed project and determine appropriate measures for preventing aggravation of those problems. This includes at a minimum a Level 1 down stream analysis.

#### Core Requirement 3: Flow Control

All proposed projects, including redevelopment projects, must provide onsite flow control facilities to mitigate the impacts of increased storm and surface water runoff generated by the addition of new impervious surface and any related land cover conversion.

Detention and/or infiltration facilities are required to meet the area-specific flow control performance standard, as specified on the Flow Control Application Maps. Critical drainage areas, master planned developments, community plans, or other rules and ordinances may require more restrictive runoff control.

#### Core Requirement 4: Conveyance System

All conveyance systems for projects must be analyzed, designed, and constructed for existing tributary off-site flows and developed on-site flows from the project.

#### Core Requirement 5: Erosion/Sedimentation Control Plan

All engineering plans for projects that involve modification or significant impact to existing drainage facilities and/or construction of new drainage facilities must include a plan to control erosion and sedimentation during construction and to permanently stabilize soil at the site.

#### Core Requirement 6: Maintenance and Operation

Maintenance of all drainage facilities constructed or modified by a project is the responsibility of the property owner, as described in the *King County Surface Water Design Manual*. The exception is that King County performs maintenance of drainage facilities constructed for formal subdivisions and some short subdivisions, beginning two years after final construction approval and following a County inspection.

#### Core Requirement 7: Bonds and Liability

All drainage facilities for projects (except for downspout roof drain infiltration systems) must comply with the bond and liability requirements of K.C.C. 9.04.100.

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### Core Requirement 8: Water Quality

All proposed projects, including redevelopment projects, must provide water quality facilities to treat the runoff from the new and/or replaced pollution generating impervious surfaces and pollution-generating pervious surfaces.

### What are the special requirements?

In addition to the core requirements, special requirements may apply to your project. Their descriptive titles are listed below; refer to the current *King County Surface Water Design Manual* for complete details.

1. Other Adopted Area-Specific Requirements
2. Floodplain/Floodway Delineation
3. Flood Protection Facilities
4. Source Control
5. Oil Control

### What other technical information reports and engineering plans exist?

If a targeted, full, or large-site drainage review is required, the core and special requirements must be addressed in a technical information report (TIR), with appropriate engineering plans completed in accordance with the instructions given in the *King County Surface Water Design Manual*.

### Are adjustments of the requirements possible?

Adjustments of the core and special requirements and/or other requirements in the *King County Surface Water Design Manual* may be proposed.

Requests for adjustments will be processed in accordance with the procedures specified in the *King County Surface Water Design Manual*. Proposed adjustments to the core and special requirements must be approved before permit approval and construction.

### Where do I purchase a King County Surface Water Design Manual?

A manual may be purchased from the DDES Cashier at 206-296-7014 and from the King County DNR Water and Land Resources Division at 206-296-6519. For additional information, visit the Water and Land Resources Division Manual web site at: <http://splash.metrokc.gov/wlr/lds/manual.htm>.

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### Other bulletins and telephone numbers that may be helpful

Bulletin 1	Building and Development Permit Telephone Numbers
Bulletin 10	Residential Building on or Near Waterfront
Bulletin 17A	Zoning Code: Overview and Summary
Bulletin 18A	Zoning Code: Permitted Use Tables
Bulletin 21	Sensitive Areas Review
Bulletin 34A	Road Variances
Bulletin 34B	Surface Water Design Manual Variances or Adjustments
Bulletin 38	Flood Insurance and FEMA
206-296-6600	DDES Permit Center
206-296-6655	DDES Zoning and Land Use Information
206-296-6640	DDES Drainage Review Information
206-296-6519	King County DNR Water & Land Resources Division



King County complies with the Americans with Disabilities Act (ADA). If you require an accommodation to attend a meeting (two weeks' notice) or require this information in Braille, audiocassette, or large print, please call 206-296-6693 or TTY 206-296-7217.